

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES

| MATERIAL | REF. | PURP. | SAMPLED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|--|--|--|-------------------------|----------------------|-------------------------|--------------------------|----------------|-----------------------|---------|--|
| | TESTED BY | | METHOD | | CONTAINER | DISTR. | | | | |
| FOR PROJECTS, OR SEPARATE LOCATIONS WITHIN A PROJECT, REQUIRING LESS THAN 250 TONS, THE JMF, MATERIALS, AND PLANT AND PAVING OPERATIONS SHALL BE SATISFACTORY TO THE ENGINEER. SEE SUBSECTION 502.12 for further details. | | | | | | | | | | |
| ADDITIVES | Anti-Stripping | 502.02 1002.02(a) Mat. Lab | Prelim. Source Approval | Dist. Lab S 612 | 1/batch or storage tank | 1 pt Friction top can | ---- | ---- | 10 days | (QPL 57) |
| | | 502.02 1002.02(a) Mat. Lab | Accept. | Proj. Engr. S 601 | 1/shipment/ plant* | 1 pt Friction top can | CD 1 & 7 | ---- | 10 days | (QPL 57) *Sample when not accompanied by CD or questionable. |
| | Hydrated Lime | 502.02 1018.03(a) Mat. Lab | Accept. | Proj. Engr. S 102 | 1/shipment* | ---- | CD 1 & 7 | ---- | 10 days | (QPL 34) *Sample only if questionable. |
| AGGREGATES | Combined Aggregates (Moisture Content) | 503.09(b) Contractor | Quality Control | Contractor S 101 | 2/day/plant* | 1 gal Suitable container | ---- | ---- | ---- | For drum-mixer plants.*Sample prior to starting plant & during operation. May be reduced to 1/plant/day when weather & stockpile conditions warrant, as allowed by DOTD inspector. |
| | Gravel, Stone & Crushed Slag | 502.02 1003.06(a)(1) Dist. Lab | Accept. | Proj. Engr. S 101 | 1/source/ plant/size | 1 full sample sack | ---- | ---- | 5 days | (QPL 2) For % crushed, CAA, & Flat & Elong. |
| | Fine Aggregate (No. 4) | 502.02 1003.06(a)2) Dist. Lab | Accept | Proj. Engr. S 101 | 1/source/ plant | 1 full sample sack | ---- | ---- | 5 days | (QPL 2) Includes Sand Equivalent and Fine Aggregate Angularity |
| | Natural Sand | 502.02 1003.06(a)(3) Dist. Lab | Accept./ Design | Proj. Engr. S 101 | 1/source/ plant | 1 full sample sack | ---- | ---- | 5 days | (QPL 2) Includes sand equivalent testing. |
| | Reclaimed Asphaltic Pavement (RAP) | 502.02(c)(2) 1003.06(a)(5) Dist. Lab | Accept./ Design | Proj. Engr. S 101 | 1/stockpile | 3 full sample sacks | ---- | ---- | ---- | For % AC, % crushed and gradation. |

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| ASPHALT MIX RELEASE AGENT | | 1018.26 503.04 Proj. Engr. | Accept.* | ---- | ---- | ---- | ---- | ---- | ---- | (QPL 25) *Visual inspection for performance by Proj. Engr. |
| ASPHALTIC CONCRETE (PLANT) | Anti-Strip Additive, % | 502.12(b)(2) 502.12(c)(2) Proj. Engr. | Accept. | Proj. Engr. S 605 | 1/half lot | * | ---- | ---- | ---- | *Range given on JMF, % AS from meter. |
| | Asphalt Cement, % | 502.12(b) Proj. Engr. | Accept. | Proj. Engr. S 605 | 1/half lot | * | ---- | ---- | ---- | *% AC from meter or scales. See QA Manual. |
| | Gyratory Specimens (Water Susceptibility) | 502.03 Contractor | Design | Contractor S 203 | 1/set/JMF | 6 briquettes/ set | ---- | ---- | ---- | Results submitted with JMF. |
| | | | Verif. | Contractor S 203 | 1/set/JMF | 6 briquettes/ set | ---- | ---- | ---- | First production day after Validation. |
| | | | Quality Control | Contractor S 203 | 1 set/ 10 lots/ JMF | ---- | ---- | ---- | ---- | ---- |
| | Gyratory Specimens (Volumetric) | 502.12 Contractor | Quality Control | Contractor S 203 | 2/sublot | ---- | ---- | ---- | ---- | Unaged N-Max. |
| | | 502.12 Project Engr. | Accept. | Proj. Engr. S 605 | 1/sublot | ---- | ---- | ---- | ---- | Aged N-Des. |
| | | 502.12 Dist. Lab | Verif. | Proj. Engr | 1/lot | Suitably wrapped | ---- | ---- | 5 days | Shall be acceptance samples representing each lot of plant operation. |
| 502.12(b) Dist. Lab | | I A | Dist. Lab S 203 | SEE INDEPENDENT ASSURANCE PROGRAM S 701. | | | | | | |

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| ASPHALTIC CONCRETE (Plant) | Job Mix Formula (JMF) | 502.03(b) Contractor | Design | ---- | 1/mix type/ plant | ---- | ---- | ---- | ---- | Contractor shall submit to the Dist. Lab Engr. the proposed job mix formula with supporting design data. Approval is required prior to starting work. |
| | | 502.03(c) Contractor & Proj Engr | Verification | Contractor & Proj. Engr. | 1/JMF | ---- | ---- | ---- | ---- | *5 samples on 1 st day's production or max. 1000 tons for validation. |
| | Loose Mixture (Maximum Specific Gravity) | 502.12 Contractor | Quality Control | Contractor S 203 | 2/sublot | suitable sampling bucket | ---- | ---- | ---- | Unaged samples. |
| | | 502.12(b) Proj. Engr. | Accept. | Proj. Engr. S 203 | 1/sublot | suitable sampling bucket | ---- | ---- | ---- | ---- |
| | Loose Mixture (Asphalt Coating) | 503.02(m) Contractor | Mix Design/ Quality Control | Contractor S 203 | 1/JMF* | 1 gal Friction top can | ---- | ---- | ---- | *Additional tests shall be taken to control asphalt coating of aggregates in mixture. |
| | | 503.02(m) Proj. Engr. | Accept. | Proj. Engr. S 203 | 1/JMF* | 1 gal Friction top can | ---- | ---- | 1 day | *Additional tests shall be taken if asphalt coating is questionable. |
| | Loose Mixture (Gradation, % AC and % Crushed) | 502.12 Contractor | Quality Control | Contractor S 203 & S 605 | 1/sublot* | Suitable sampling bucket | ---- | ---- | ---- | Used for PWL calculations |
| | | 501.12(b) Dist. Lab | I A | Dist. Lab S 203 | ---- | ---- | ---- | ---- | 7 days | See Independent Assurance Program S 701. Whenever possible, sample at same time acceptance sampling is done. |

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| | | TESTED BY | | METHOD | | CONTAINER | DISTR. | | | |
| ASPHALTIC CONCRETE (Plant) (Cont'd) | Loose Mixture (Moisture Content) | 502.12(a) 503.09 Contractor | Mix Design/ Quality Control | Contractor S 203 | 1/lot | 1 gal Friction top can | ---- | ---- | ---- | ---- |
| | | 503.09 Proj. Engr. | Accept. | Proj. Engr. S 203 | 1/day | 1 gal Friction top can | ---- | ---- | 1 day | ---- |
| | Loose Mixture (Absorption Recovery) | 503.02(a) Mat. Lab | Accept. | Proj. Engr. S 203 | 1/plant* | 1 gal Friction top can | ---- | ---- | 14 days | Plant Certification. *Additional samples will be taken if plant process is questionable. |
| | Loose Mixture* (Temperature) | 503.09 Contractor | Quality Control | Contractor S 605 | 2/sublot | ---- | ---- | ---- | ---- | *Temperature of mixture at discharge chute. |
| | | 503.09 Proj. Engr. | Accept. | Proj. Engr. S 605 | 1/sublot | ---- | ---- | ---- | 1 day | *Temperature of mixture in truck at plant. |
| | Density | 502.12(b) Proj. Engr. | Accept. | Proj. Engr. S 203 & S 605 | 5/sublot/ mix use/ project* | 4 or 6 in. diameter core | ---- | ---- | 1 day | * See QA manual for shipment of cores. |
| | | 502.12(b) Dist. Lab | Verif. | Proj. Engr. S 203 & S 605 | 2/sublot/ project | 4 or 6 in. diameter core | ---- | ---- | 5 days | Five are selected at random for verification testing. |
| | | 502.12(b) Dist. Lab | I A | Dist. Lab S 203 | SEE INDEPENDENT ASSURANCE PROGRAM S 701. | | | | | |

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| | | TESTED BY | | METHOD | | CONTAINER | DISTR. | | | |
| ASPHALTIC CONCRETE (In-Place) | Longitudinal Surface Tolerance | 502.10 Contractor | Quality Control | Contractor TR 641 S 605 | Each lot/project | Entire length/ two paths/paving strip | ---- | ---- | ---- | Cont. must furnish an approved 25 ft profilograph, or approved alternate. Applies to roadway and airport WC & BC and parking area WC. |
| | | 502.10 Contractor | Quality Control | Contractor S 605 | 5/sublot/project | ---- | ---- | ---- | ---- | Applies to WC on shoulders (less than 10 ft wide), turnouts, crossovers, and roadway section less than 100 ft. Use an app. 10 ft metal static straightedge. |
| | | 502.12 Dist. Lab or Proj. Engr. | Accept. | Dist. Lab or Proj. Engr. TR 641 S 605 | Each lot/paving strip | Entire length/ two paths/paving strip | ---- | ---- | 2 days | Applies to final roadway or airport wearing course surface. AC data may be accepted. |
| | | 502.12 Proj. Engr. | Accept. | Proj. Engr. S 605 | 1/300 ft | Entire length | ---- | ---- | 1 day | Applies to final wearing on shoulders. Cont. shall furnish an app. 10 ft metal static straightedge. |
| | Loose Mixture* (Temperature) | 502.07 Proj. Engr. | Accept. | Proj. Engr. S 605 | 2/sublot | ---- | ---- | ---- | 1 day | *Temperature of mixture in paver hopper. |
| | Transverse Surface Tolerance, Cross Slope and Grade | 502.10 Contractor | Quality Control | Contractor S 605 | * | ---- | ---- | ---- | ---- | *As needed to control project within spec. requirements. |
| | | 502.10 Proj. Engr. | Accept. | Proj. Engr. S 605 | * | ---- | ---- | ---- | 1 day | *Test at selected locations for conformance to specs. |
| | Thickness & Width | 502.11 Dist. Lab | Accept. | Dist. Lab TR 602 | * | ---- | ---- | 300 lin ft per location | 3 days | Applies to mixtures specified for payment on a cubic yard or square yard basis. *See DOTD TR 602. |

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| ASPHALTIC MATERIAL | Asphalt Cement | 1002.01 Mat. Lab | Prelim. Source Approval | Refinery S 201 | 1/supplier tank | 1 qt Friction top can | CA 7 | ---- | 5 days | (OPL 41) Non Self Certified Must have tank approved by mat. Lab prior to shipping whenever asphalt cement is added or modified. DOTD results used for approval. |
| | | 1002.01 Refinery | Prelim. Source Approval | Refinery S 201 | 1/supplier tank | 1 qt Friction top can | CA 7 | ---- | 2 hrs during working hours | (OPL 41) Self Certified Supplier, shall sample and test each tank in accordance with quality control plan whenever asphalt cement is added to modified and supply CA to Mat. Lab along with 1 qt sample for verification testing. Supplier results used for approval. |
| | | 1002.01 Proj. Engr. | Accept. | ---- | ---- | ---- | CD 8 & 9 | ---- | 5 days | (OPL 41) 1 CD to accompany each transport. |
| | | 1002.01 Dist. Lab | Verif. | Proj. Engr. S 201 | 1/plant working tank/day of production | 1 qt friction top cans | ---- | ---- | 5 days | (OPL 41) Test original binder DSR. If sample does not meet criteria, the plant will be investigated and the Dist. Lab will notify the Proj. Engr., the HMA Producer, and the Mat. Lab. Rotational viscosity to be tested 1/working tank/week for information. A record of results will be kept on file. |
| | | 1002.01 Dist. Lab | Verif. | Proj. Engr. S 201 | 1/working tank | 1 qt Friction top can | ---- | ---- | 10 days | Sample after 72 hour shut down period. |
| | | 1002.01 Mat. Lab | Verif. | Proj. Engr. S 201 | 1 transport/project | 1 qt Friction top can | ---- | ---- | 10 days | (OPL 41) Send directly to Materials Lab for comparison to refinery sample. |
| | Curing Membrane | SEE SECTION 506 OF THIS MANUAL. | | | | | | | | |
| | Prime Coat | SEE SECTION 505 OF THIS MANUAL. | | | | | | | | |
| | Tack Coat | SEE SECTION 504 OF THIS MANUAL. | | | | | | | | |